

discovered. With great care and precaution the following fragments were obtained :—three claws of eight to twelve centimetres in length, several other phalanges with fine articular surfaces, a part of the tarsus and metatarsus, two vertebræ joined, and several other fragments. The dimensions of these bones is such that the whole length of the animal cannot have been less than from thirty to forty metres. [?]

These remains lay in the upper strata of the Keuper, visibly overlapped by the lower Lias. These formations have heretofore been considered as devoid of organic remains in this country (France) where they contain gypsum and rock-salt. Nevertheless, some years ago, M. Pidancet, a geologist of the Franche-Comté, found in these same strata large bones, which he deposited in the museum of Besançon, and which he considers as belonging to the same species. Besides, a few months ago, near Domblans, while opening a ditch for the railroad, a similar fragment was found; and M. Lauckardt, one of the employés, has seen at the same place other bones, much larger, which he could not remove on account of their fragility.

Another discovery, not less important, was made by M. Froment, mayor of Saint Lothaire, in strata younger than the Keuper formation. The bones found there belong to the *Elephas primigenius* and to a kind of Stag; among them are two molar teeth beautifully preserved. This deposit of bones is in a layer of sand and marl containing boulders of quartz and numerous fragments of terrestrial and fresh-water shells, but no trace of human remains.—*Silliman's Journal* for January 1862.

On the general conditions of the Avicula contorta Beds, and on the constitution of the Infra-Liassic stage. By ANT. STOPPANI.

The little fossil which bears the name of *Avicula contorta* was scarcely known a few years ago. General Portlock first named it, in 1843, after his geological investigation of a part of Ireland. By degrees this fossil has acquired great importance, which is due to its abundance, and to the extent of the beds in which it has been deposited.

The first part of M. Stoppani's memoir contains a historical summary of the investigation of the beds which occur on the horizon of the *Avicula contorta*, the description of the characters of these beds, and the indication of their thickness, which appears to be but small in England, about 12 metres on the northern slope of the Alps, and from 800 to 1000 feet in Lombardy. As regards their extent, they are known in Ireland and England, in Würtemberg and Bavaria, in Westphalia, Luxembourg, and the departments of the Moselle, of La Meurthe, of the Côte d'Or, de l'Yonne and of the Rhone, in the Cevennes, in Savoy, in Switzerland, in the Vorarlberg, and at other points of the chain of the Alps as far as Hungary. Throughout, these beds form a convenient and clear horizon.

In his second part, M. Stoppani describes the *Avicula-contorta* beds in Lombardy, previously studied by MM. Collegno, Escher, and Omboni. These beds are there represented by the deposit of the

Azzardla, formed of limestone and marl combined with the black schists and lunachello, which are inferior to them. Both contain *Avicula contorta* and a special fauna, which has already been partly described by the author in his 'Paléontologie Lombarde,' from which this memoir is an extract.

In the third part, the author shows that the palæontological study of the *Avicula-contorta* beds ranges them in the Jurassic series, and that they are of sufficient importance, and so clearly separated from the beds above and below them, to form a distinct stage, to which he gives the name of *étage infraliasien*. The synonyms of these beds in other countries are given by the author as follows:—the Kössen beds in Austria; the Bone-bed and the White Lias in England; the precursor of the Lias or Cloac of Würtemberg; the Sandstones of Helmsingen and Lövelange in Luxembourg; the Sandstones of Hettange; the zone of *Ammonites planorbis* and *A. angulatus* of Oppel; the Limestone of Halberstadt; the Limestone of Valogne; the "*choin bâtard*" of Lyons; the "*foie de veau*" of Burgundy; part of the *Sinemurien* of D'Orbigny; the fourth stage of the Lias of D'Archiac; the Superior Dolomite of Lombardy, &c. The author gives a summary of all the classifications on this subject by means of a table, in which he assumes that the Infra-Liassic stage placed below the zone of *Ammonites Bucklandi* is composed as follows:—1, zone of *A. angulatus*; 2, zone of *A. planorbis*; 3, zone of *Terebratula gregaria*; 4, zone of *Bactryllium* resting on the Keuper.—*Bibl. Univ.* Jan. 20, 1862, *Bull. Sci.* p. 67.

CODIUM BURSA.

In most botanical works this plant is described as being "soft and sponge-like:" this only applies to its dry state. Miss Dyke Poore has kindly sent me two specimens growing together at the base. Instead of the plant being soft and sponge-like, it is hard and firm like a solid fruit, of a very dark olive-green colour; the surface is regularly granulated. The periphery of the globe is entirely formed of dark, transparent, clavate cells, the apices of which form the superficial granules, which are of a hemispherical shape. The appearance of the living plant is very unlike the velvety frond of the *Codium tomentosum*.—J. E. GRAY.

CAPTURE OF DIODON PENNATUM.

The Earl of Enniskillen, having observed a fine specimen of *Diodon pennatum* in the collection of Henry Norris, Esq., F.R.C.S., of Charmouth, and, on inquiry, finding that it was caught a short time ago on the coast near Charmouth, induced Mr. Norris to transmit the specimen to the Collection of British Animals in the British Museum. This is only the second time that the fish has been observed on the coast of Britain.—J. E. GRAY.